

01-05-05

2634B

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
(Case No. 97,573-A)

In the Application of:

William Kurt Dobson

Serial No.: 09/885,220

Filing Date: June 20, 2001

For: Multi-Carrier LAN Adapter Device
Using Interpolative Equalizer

Examiner: HA, Dac V.

Group Art Unit: 2634

TRANSMITTAL LETTER

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

In regard to the above identified application,

1. We are transmitting herewith the attached:
 - a) Resubmission of Information Disclosure Statements
 - b) Copy of Information Disclosure Statement filed June 20, 2001 with cited references
 - c) Copy of Supplemental Information Disclosure Statement filed October 9, 2001 with cited references
2. With respect to fees:
 - a) No fee is required.
 - b) Please charge any underpayment or credit any overpayment our Deposit Account, No. 13-2490.
3. CERTIFICATE OF MAILING UNDER 37 CFR § 1.10 The undersigned hereby certifies that this transmittal Letter and the paper, as described in paragraph 1 hereinabove, are being deposited with the United States Postal Service with sufficient postage as "Express Mail Post Office to Addressee," addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on January 4, 2005.

Respectfully submitted,

Brian R. Harris
Registration No. 45,900

Date: January 4, 2005



PATENT

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
(Case No. MBHB 97-573-A)**

In re Application of:

William Kurt Dobson

Serial No.: 09/885,220

Filed: June 20, 2001

**For: Multi-Carrier LAN Adapter
Device Using Interpolative
Equalizer**

)
)
) **Group Art Unit: 2634**
) **Examiner: Ha, Dac V.**
)
)
)

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

RESUBMISSION OF INFORMATION DISCLOSURE STATEMENTS

Applicant previously submitted two Information Disclosure Statements, however, has not received the initialed 1449 Forms back from the Examiner. In speaking with Examiner Ha, it appears that the IDSs might not have been associated with this application. Therefore, Applicant is resubmitting the IDSs and requests that they be initialed and returned by the Examiner.

The first IDS was part of the original application filing, as evidenced by the enclosed utility application transmittal form. The second IDS was also received by the USPTO, as evidenced by the stamped postcard receipt. Because both IDSs were previously submitted and received by the USPTO, Applicant believes that no fee is required for this resubmission.

If the Examiner has any remaining questions or issue, Applicant's attorney, Brian Harris, may be reached at his direct dial number of (312) 913-3303.

Date: 1/4/05

Respectfully submitted,



Brian R. Harris
Registration No. 45,900

McDonnell Boehnen Hulbert & Berghoff LLP
300 South Wacker Drive
Suite 3100
Chicago, Illinois 60606
Telephone: 312 913 0001
Facsimile: 312 913 0002

FORM PTO-1449
(Rev. 2-32)

U.S. Department of Commerce
Patent and Trademark Office

Atty. Docket No.

97,573-A

Serial No.

To be assigned

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

(Use several sheets if necessary)

Applicant:

William Kurt Dobson

Filing Date:

June 20, 2001

Group:

To be assigned

U.S. PATENT DOCUMENTS

Examiner Initial		Document Number	Date	Name	Class	Subclass	Filing Date if Appropriate
	1	5,003,579	03-26-91	Jones	379	93	09-07-89
	2	5,130,793	07-14-92	Bordry et al.	358	86	07-20-89
	3	4,899,217	02-06-90	MacFadyen et al.	358	86	12-01-87
	4	5,410,292	04-25-95	Le Van Suu	340	310.06	06-24-92
	5	4,959,713	09-25-90	Morotomi et al.	358	108	10-10-89
	6	4,760,375	07-26-88	Stecker	340	310	10-26-84
	7	5,621,662	04-15-97	Humphries et al.	364	550	02-15-94
	8	5,592,482	01-07-97	Abraham	348	8	09-12-94
	9	5,051,720	09-24-91	Kittirutsunetorn	340	310	11-13-89
	10	5,673,290	09-30-97	Cioffi	375	260	06-07-95
	11	4,430,743	02-07-84	Watanabe	333	18	11-13-81
	12	5,195,106	03-16-93	Kazecki et al.	375	12	11-14-90
	13	5,319,674	06-07-94	Cherubini	375	101	10-22-91
	14	5,121,414	06-09-92	Levine et al.	375	96	08-09-90
	15	3,679,882	07-25-72	McAuliffe	235	152	06-11-70
	16	4,901,342	12-13-90	Jones	379	93	10-27-88
	17	5,317,596	05-31-94	Ho et al.	370	32.1	12-01-92

FORM PTO-1449
(Rev. 2-32)

U.S. Department of Commerce
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Atty. Docket No.

97,573-A

Serial No.

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(Use several sheets if necessary)

Applicant:

William Kurt Dobson

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U.S. PATENT DOCUMENTS

Examiner Initial		Document Number	Date	Name	Class	Subclass	Filing Date if Appropriate
	18	4,106,103	08-08-78	Perreault	364	827	07-19-76
	19	5,627,863	05-06-97	Aslanis et al.	375	357	07-15-94
	20	5,668,802	09-16-97	Chalmers et al.	370	276	11-07-94
	21	5,521,908	05-28-96	Younce et al.	370	32.1	04-20-95
	22	5,572,511	11-05-96	Ouyang et al.	370	13	01-27-95
	23	5,627,828	05-06-97	Lee	370	445	03-14-95
	24	5,519,727	05-21-96	Okanoue et al.	375	232	12-21-93
	25	4,539,689	09-03-85	Chiu et al.	375	13	09-14-83
	26	4,227,152	10-07-80	Godard et al.	375	13	05-23-79
	27	4,152,649	05-01-79	Choquet	325	42	06-21-77
	28	5,353,287	10-04-94	Kuddes et al.	370	85.2	03-25-92
	29	5,197,066	03-23-93	Sutterlin	370	85.3	03-28-91
	30	4,885,742	12-05-89	Yano	370	85.2	01-27-89
	31	4,751,701	06-14-88	Roos et al.	370	85	11-14-85
	32	4,885,743	12-05-89	Helbers et al.	370	85.2	02-18-88
	33	4,745,600	05-17-88	Herman et al.	370	95	04-14-86
	34	4,345,250	08-17-82	Jacobsthal	340	825.5	12-22-80

FORM PTO-1449 (Rev. 2-32)	U.S. Department of Commerce Patent and Trademark Office	Atty. Docket No. 97,573-A	Serial No. To be assigned
INFORMATION DISCLOSURE STATEMENT BY APPLICANT		Applicant: William Kurt Dobson	
		Filing Date: June 20, 2001	Group: To be assigned
(Use several sheets if necessary)			

U.S. PATENT DOCUMENTS

Examiner Initial		Document Number	Date	Name	Class	Subclass	Filing Date if Appropriate
	35	4,519,074	05-21-85	Basile	370	124	05-31-83
	36	5,568,476	10-22-96	Sherer et al.	370	60	10-26-94
	37	4,943,980	07-24-90	Dobson et al.	375	42	05-02-89
	38	4,233,589	11-11-80	Rawson et al.	340	147	05-25-79
	39	5,377,327	12-27-94	Jain et al.	395	200	01-21-94
	40	5,355,375	10-11-94	Christensen	370	85.2	03-18-93
	41	4,965,792	10-23-90	Yano	370	85.2	02-07-90
	42	5,166,924	11-24-92	Moose	370	32.1	08-10-90
	43	5,461,640	10-24-95	Gatherer	375	231	06-03-94
	44	5,636,246	06-03-97	Tzannes et al.	375	260	11-16-94
	45	5,521,937	05-28-96	Kondo et al.	375	206	10-08-93
	46	5,479,447	12-26-95	Chow et al.	375	260	05-03-93
	47	5,625,871	04-29-97	Myer et al.	455	33.1	09-30-94
	48	5,570,350	10-29-96	Myer et al.	370	18	09-30-94
	49	5,694,396	12-02-97	Firouzbakht et al.	370	480	12-29-95
	50	5,694,395	12-02-97	Myer et al.	370	480	09-30-94
	51	5,400,322	03-21-95	Hunt et al.	370	19	08-20-93

FORM PTO-1449 (Rev. 2-32)	U.S. Department of Commerce Patent and Trademark Office	Atty. Docket No. 97,573-A	Serial No. To be assigned
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U.S. PATENT DOCUMENTS

Examiner Initial		Document Number	Date	Name	Class	Subclass	Filing Date if Appropriate
	52	5,596,604	01-21-97	Cioffi et al.	345	260	08-17-93
	53	5,659,891	08-19-97	Hays et al.	455	103	06-07-95
	54	5,729,570	03-17-98	Magill	375	206	12-08-94
	55	5,278,844	01-11-94	Murphy et al.	371	37.1	04-11-91
	56	5,117,418	05-26-92	Chaffee et al.	370	32.1	11-09-90
	57	4,509,206	04-02-85	Carpe et al.	455	245	05-02-83
	58	4,881,222	11-14-89	Goeckler et al.	370	70	03-04-88
	59	5,285,474	02-08-94	Chow et al.	375	13	06-12-92
	60	5,313,169	05-17-94	Fouche et al.	329	302	11-29-91
	61	5,329,552	07-12-94	De Couasnon et al.	375	59	12-11-92
	62	5,226,081	07-06-93	Hinokimoto	380	34	05-14-91
	63	5,206,886	04-27-93	Bingham	375	97	04-16-90
	64	5,128,964	07-07-92	Mallory	375	39	10-10-90
	65	5,228,062	07-13-93	Bingham	375	97	05-27-92
	66	4,899,217	02-06-90	MacFadyen et al.	358	86	12-01-87
	67	5,519,731	05-21-96	Cioffi	375	260	04-14-94
	68	5,655,140	08-05-97	Haddock	395	200.76	11-02-95

FORM PTO-1449
(Rev. 2-32)

U.S. Department of Commerce
Patent and Trademark Office

Atty. Docket No.

97,573-A

Serial No.

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(Use several sheets if necessary)

Applicant:

William Kurt Dobson

Filing Date:

June 20, 2001

Group:

To be assigned

U.S. PATENT DOCUMENTS

Examiner Initial		Document Number	Date	Name	Class	Subclass	Filing Date if Appropriate
	69	5,625,651	04-29-97	Cioffi	375	354	06-02-94
	70	5,553,008	09-03-96	Huang et al.	364	578	07-10-95
	71	4,687,788	08-18-87	Hillshafer et al.	521	163	11-25-83
	72	5,608,725	03-04-97	Grube et al.	370	338	01-26-95
	73	5,606,577	02-25-97	Grube et al.	375	295	01-26-95
	74	5,671,251	09-23-97	Blackwell et al.	375	222	02-28-95
	75	5,651,009	07-22-1997	Perreault et al.	370	447	05-02-95
	76	5,636,211	06-03-97	Newlin et al.	370	465	08-15-95
	77	5,598,401	01-28-97	Blackwell et al.	379	94	03-21-95
	78	5,596,577	01-21-97	Perreault et al.	370	449	05-02-95
	79	5,572,546	11-05-96	Serfaty et al.	375	221	12-22-94
	80	5,210,530	05-11-93	Kammerer et al.	340	825.08	01-04-91
	81	4,652,874	03-24-87	Loyer	340	825.05	12-24-84
	82	4,247,908	01-27-81	Lockhart, Jr. et al.	364	900	12-08-78
	83	5,539,777	07-23-96	Grubē et al.	375	316	01-26-95

FORM PTO-1449 (Rev. 2-32)	U.S. Department of Commerce Patent and Trademark Office	Atty. Docket No. 97,573-A	Serial No. To be assigned
INFORMATION DISCLOSURE STATEMENT BY APPLICANT		Applicant: William Kurt Dobson	
(Use several sheets if necessary)		Filing Date: June 20, 2001	Group: To be assigned

FOREIGN PATENT DOCUMENTS

		Document Number	Date	Country	Class	Subclass	Translation	
							Yes	No
	84	EP 0 795 977 A2	09-17-97	EP				
	85	WO 96/24207	08-08-96	PCT				
	86	EP 0 795 984 A2	09-17-97	EP				

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc).

	87	Sidhu, I., Grabelsky, D., <i>A Simple and Efficient Medium Access Layer Protocol for Local Area Networks with Multiple-Priority Traffic</i> , Advanced Technologies, Carrier Systems Division, 3Com, Pgs. 1-3.
	88	Van De Beek, J., Edfors, O., Sandell, M., Wilson, S., Borjesson, P., <i>On Channel Estimation in OFDM Systems</i> , Division of Signal Processing, Lulea University of Technology, Sweden, Purdue University, School of Engineering, West Lafayette, Indiana, Pgs. 1-5.
	89	Edfors, O., Sandell, M., Van De Beek, J., Wilson, S., Borjesson, P., <i>OFDM Channel Estimation by Singular Value Decomposition</i> , Division of Signal Processing, Lulea University of Technology, Lulea, Sweden, Purdue University, School of Electrical and Computer Engineering, West Lafayette, Indiana, Pgs. 1-5.
	90	Nilsson, R., Edfors, O., Sandell, M., Borjesson, P., <i>An Analysis of Two-Dimensional Pilot-Symbol Assisted Modulation for OFDM</i> , Division of Signal Processing, Lulea University of Technology, Sweden, Department of Applied Electronics, Lund University, Lund, Sweden, Lucent Technologies, Bell Labs, Windmill Hill Business Park, Swindon, UK, Pgs. 1-4.
	91	Wahlqvist, M., Ostberg, C., Van De Beek, J., Edfors, O., Borjesson, P., <i>A Conceptual Study of OFDM-Based Multiple Access Schemes, Part 1: Air Interface Requirements</i> , Lulea University of Technology, Lulea, Sweden, Telia Research, Lulea, Sweden, Pgs. 1-7.
	92	Van De Beek, J., Edfors, O., Borjesson, P., Wahlqvist, M., Ostberg, C., <i>A Conceptual Study of OFDM-Based Multiple Access Schemes, Part 2: Channel Estimation in the Uplink</i> , Lulea University of Technology, Lulea, Sweden, Telia Research, Lulea, Sweden, Pgs. 1-7.

FORM PTO-1449 (Rev. 2-32)	U.S. Department of Commerce Patent and Trademark Office	Atty. Docket No. 97,573-A	Serial No. To be assigned
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use several sheets if necessary)		Applicant: William Kurt Dobson	
		Filing Date: June 20, 2001	Group: To be assigned

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

93	Van De Beek, J., Edfors, O., Borjesson, P., Wahlqvist, M., Ostberg, C., <i>A Conceptual Study of OFDM-Based Multiple Access Schemes, Part 3: Performance Evaluation of a Coded System</i> , Lulea University of Technology, Lulea, Sweden, Telia Research, Lulea, Sweden, Pgs. 1-6.		
94	Antipolis, Sophia, <i>A Conceptual Study of OFDM-Based Multiple Access Schemes, Part 4: Tracking of Time and Frequency Offset</i> , Telia Research, December 1996, Pgs. 1-12.		
95	Van De Beek, J., Sandell, M., Borjesson, P., <i>ML Estimation of Timing and Frequency Offset in Multicarrier Systems</i> , Division of Signal Processing, Lulea University of Technology, Lulea, Sweden, April, 1996, Pgs. 1-24		
96	Sandell, M., Edfors, O., <i>A Comparative Study of Pilot-Based Channel Estimators for Wireless OFDM</i> , September 1996, Pgs. 1-34.		
97	Lulea University of Technology, Division of Signal Processing, <i>Synchronization in OFDM</i> , March 27, 1998, Pgs. 1-3.		
98	Van De Beek, J., Sandell, M., Borjesson, P., <i>On Synchronization in OFDM Systems Using the Cyclic Prefix</i> , Division of Signal Processing, Lulea University of Technology, Lulea, Sweden, Pgs. 1-5.		
99	Van De Beek, J., Sandell, M., Isaksson, M., Borjesson, P., <i>Low-Complex Frame Synchronization in OFDM Systems</i> , Division of Signal Processing, Lulea University of Technology, Lulea, Sweden, Telia Research, Lulea, Sweden, Pgs. 1-5.		
100	Isaksson, Mikael, <i>Proposal: Option for In-Band POT and ISDN</i> , Standards Project: T1E1.4:VDSL, September 22-26, 1997, Pgs. 1-5.		
101	Sandell, M., Van De Beek, J., Borjesson, P., <i>Timing and Frequency Synchronization in OFDM Systems Using the Cyclic Prefix</i> , Division of Signal Processing, Lulea University of Technology, Lulea, Sweden, Pgs. 1-4.		
102	Edfors, O., Sandell, M., Van De Beek, J., Wilson, S., Borjesson, P., <i>Analysis of DFT-Based Channel Estimators for OFDM</i> , Vehicular Technology Conference (VTC'96), Chicago, Illinois, July 25-28, 1995, Pgs. 1-25.		
103	Edfors, O., Sandell, M., Van De Beek, J., Landstrom, D., Sjoberg, F., <i>An Introduction to Orthogonal Frequency-Division Multiplexing</i> , September 1996, Pgs. 1-58.		
104	Edfors, Ove, <i>Low-Complexity Algorithms in Digital Receivers</i> , Doctoral Thesis, Lulea University of Technology, September 1996, Pgs. 1-190.		
<table border="1"> <tr> <td data-bbox="74 1776 203 1801">EXAMINER</td> <td data-bbox="927 1776 1153 1801">DATE CONSIDERED</td> </tr> </table>		EXAMINER	DATE CONSIDERED
EXAMINER	DATE CONSIDERED		

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in

Express Mail Label No. EL604651533US

conformance and not considered. Include copy of this form with next communication.

BEST AVAILABLE COPY

Hon. Commissioner of
Patents and Trademarks

09/885,220

Patent Agent: MD/sk

Re: Applicant - William Kurt Dobson

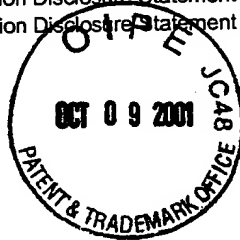
Case No. 97,573-A

Multi-Carrier Lan Adapter Device Using Interpolative Equalizer

Sir:

Please place the Patent Office receipt stamp hereon and mail to acknowledge receipt of:

- ☒ Transmittal Letter
- ☒ Supplemental Information Disclosure Statement
- ☒ Supplemental Information Disclosure Statement (IDS) PTO-1449 Form
- ☒ 8 Cited References.



Fee Enclosed
\$ 0.00

Date Mailed: October 3, 2001

Respectfully,
McDonnell Boehnen Hulbert & Berghoff
Attorney for Applicant

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
(Case No. 97-573-A)

In re Application of:

William Kurt Dobson

Serial No.: 09/885,220

Filed: June 20, 2001

For: MULTI-CARRIER LAN ADAPTER DEVICE
USING INTERPOLATIVE EQUALIZER

Art Unit: 2634

Examiner: To Be Assigned

Commissioner for Patents
Washington, D.C. 20231

TRANSMITTAL LETTER

1. We are transmitting herewith the attached papers for the above identified new patent application:

- ☒ Supplemental Information Disclosure Statement
- ☒ Supplemental Information Disclosure Statement (IDS) PTO-1449 Form
- ☒ Copies of IDS Citations for 09/885,220 (Total 8 documents)
- ☒ Return Receipt Postcard

2. **GENERAL AUTHORIZATION TO CHARGE OR CREDIT FEES:** Please charge any additional fees or credit overpayment to Deposit Account No. 13-2490. A duplicate copy of this sheet is enclosed.
3. **CERTIFICATE OF MAILING UNDER 37 CFR § 1.8:** The undersigned hereby certifies that this Transmittal Letter and the papers, as described in paragraph 1 herein-above, are being deposited with the United States Postal Service with sufficient postage as "First Class Mail" in an envelope addressed to: Commissioner for Patents, Washington, D.C. 20231, on this 3RD day of October, 2001.

By: Monika Dudek
Monika Dudek
Patent Agent Registration No. 47,538

PATENT

**UNITED STATES PATENT AND TRADEMARK OFFICE
(Case No. 97-573-A)**

In the Application of:)	
)	
William Kurt Dobson)	Art Unit: 2634
)	
Serial No.: 09/885,220)	
)	
Filed: June 20, 2001)	Examiner: To Be Assigned
)	
For: MULTI-CARRIER LAN ADAPTER)	
DEVICE USING INTERPOLATIVE)	
EQUALIZER)	

SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents
Washington, D.C. 20231

Dear Sir:

Pursuant to the duty of disclosure provided by 35 C.F.R. § 1.56 and §§ 1.97-98, the applicants wish to make the following references of record in the above-identified application. Copies of the references are enclosed. Copies are also listed in the PTO-1449 form enclosed herewith. It is requested that the documents be given careful consideration and that they be cited of record in the prosecution history of the present application so that they will appear on the face of the patent issuing from the present application.

Portions of the references may be material to the examination of the pending claims, however no such admission is intended. 37 C.F.R. 1.97 (h). The references have not been reviewed in sufficient detail to make any other representation and, in particular, no representation is intended as to the relative importance of any portion of the

references. This Statement is not a representation that the cited references have effective dates early enough to be "prior art" within the meaning of 35 U.S.C. sections 102 or 103, nor submission to be construed as a representation that a search has been made.


CITED REFERENCES

U.S. PATENT DOCUMENTS

Patent No.	Issue Date	Name	Class	Subclass	Filing Date
1 6,130,893	10/10/2000	Whittaker et al.	370	420	05/29/1998
2 6,005,893	12/21/1999	Mattius Hyll	375	260	09/23/1997
3 6,101,182	08/08/2000	Sistanizadeh et al.	370	352	11/25/1997
4 5,909,463	06/01/1999	Johnson et al.	375	220	11/04/1996
5 5,479,447	12/26/1995	Chow et al.	375	260	05/03/1993
6 6,154,465	11/28/2000	Scott K. Pickett	370	466	10/06/1998
7 6,069,899	05/30/2000	Peter F. Foley	370	494	08/28/1997
8 6,101,216	08/08/2000	Henderson et al.	375	222	10/03/1997

Respectfully submitted,
McDonnell Boehnen Hulbert & Berghoff

Date: **October 3, 2001**

By: 
Monika Dudek
Patent Agent Registration No. 47,538

FORM PTO-1449 (Rev. 2-32)	U.S. Department of Commerce Patent and Trademark Office	Atty. Docket No. 97-573-A	Serial No. 09/885,220 -
SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT BY APPLICANT		Applicant: William Kurt Dobson	
(Use several sheets if necessary)		Filing Date: June 20, 2001	Group: 2634

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	8	6,101,216	08/08/00	Henderson et al.	375	222	10/03/97

EXAMINER	DATE CONSIDERED
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EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication.